STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response
Isaac P. Ajit, M.D., M.P.H., Deputy Director

December 21, 2007
Public Health & Emergency Preparedness Bulletin: # 2007:50
Reporting for the week ending 12/15/07 (MMWR Week #50)

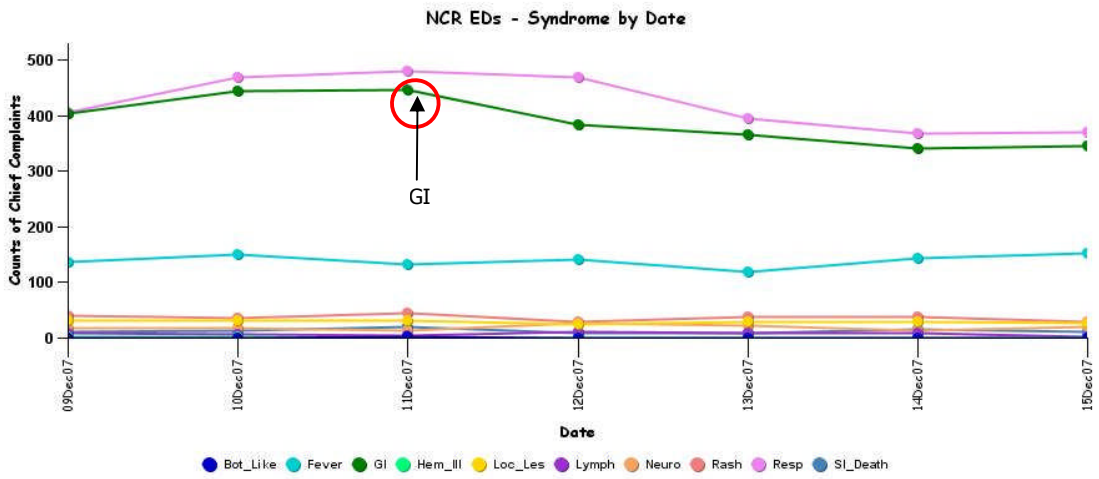
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

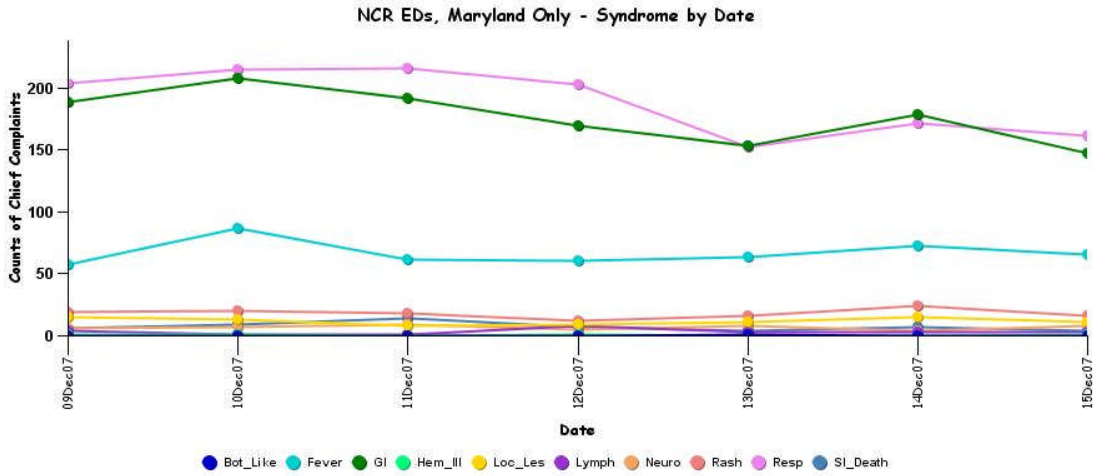
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

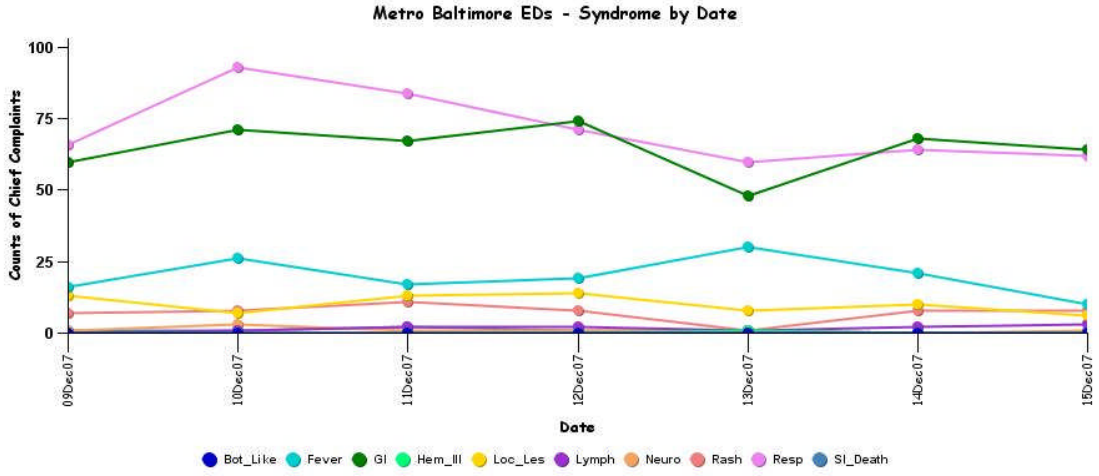
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

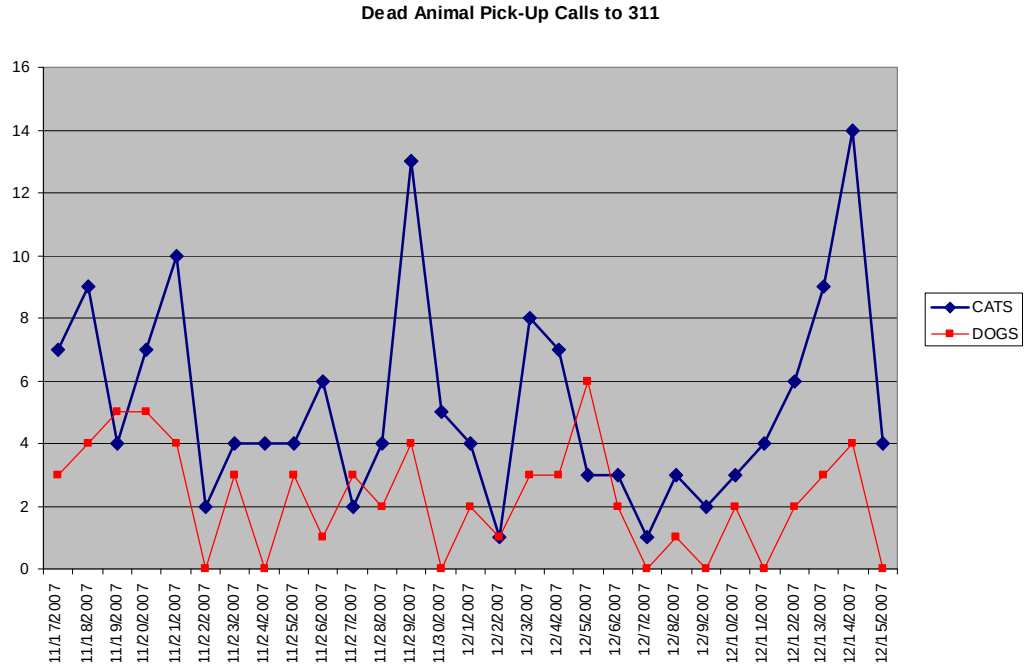


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



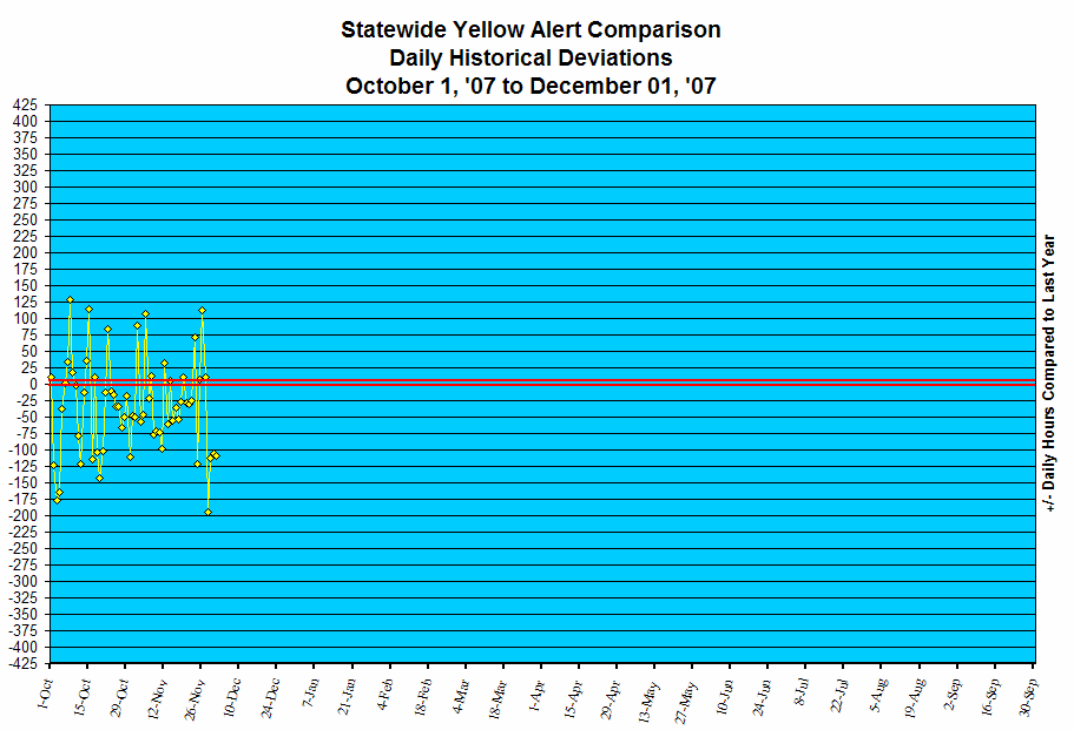
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.



REVIEW OF MORTALITY REPORTS

OCME: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2007 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases:	9	2
Prior week:	10	0
Week#50, 2006:	-	-

OUTBREAKS: 5 outbreaks were reported to DHMH during MMWR Week 50 (Dec. 9- Dec. 15, 2007):

2 Foodborne Gastroenteritis outbreaks
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant

2 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS associated with a Nursing Home
1 outbreak of GASTROENTERITIS associated with a School

1 Respiratory illness outbreaks
1 outbreak of INFLUENZA-LIKE ILLNESS associated with a Nursing Home

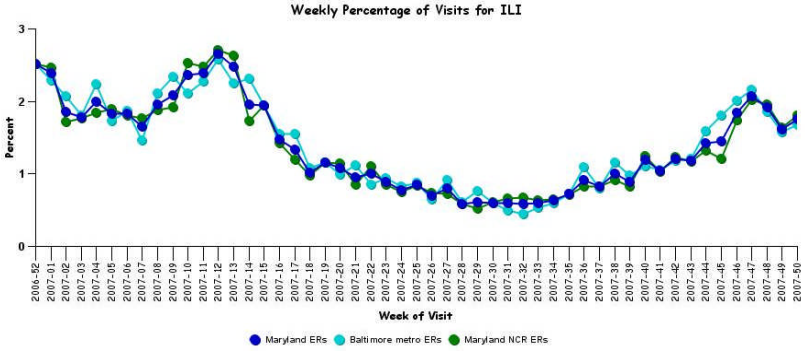
MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May. No suspected cases of influenza were reported to DHMH during MMWR Week 50 (December 9 – 15, 2007). To date this season, there have been 24 lab confirmed influenza cases in Maryland.

*Please note: Influenza data reported to DHMH through the National Electronic Disease Surveillance System (NEDSS) is provisional and subject to further review.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of December 14, 2007, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 340, of which 208 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

AVIAN INFLUENZA, HUMAN (China): 10 Dec 2007, The Ministry of Health in China has reported a new case of human infection with the H5N1 avian influenza virus in Jiangsu Province. The case was confirmed by the national laboratory on Dec 6. The 52-year-old male is the father of the 24-year-old man who died from H5N1 infection on Dec 2. He is one of the close contacts placed under medical observation by national authorities. He developed symptoms on Dec 3 and was sent immediately to hospital for treatment. Of the 27 cases confirmed to date in China, 17 have been fatal.

AVIAN INFLUENZA, HUMAN (Indonesia): 12 Dec 2007, The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 28-year-old female from Tangerang City, Banten Province developed symptoms on Dec 1, was hospitalized on Dec 7, and died in an avian influenza referral hospital on Dec 10. The patient worked as a roadside seller of decorative plants. Poultry and poultry cages were located in the vicinity of her business. Investigations are ongoing into the source of her infection.

AVIAN INFLUENZA, HUMAN (Indonesia): 13 Dec 2007, The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 47-year-old male from Tangerang City, Banten Province developed symptoms on Dec 2 and was hospitalized on Dec 9. The source of his exposure is currently under investigation. Joko Suyono, an official at the health ministry's bird flu centre, said the man kept ducks at his home and had recently traveled to the cities of Medan in Sumatra and Pandeglang in West Java. "Two tests have confirmed that he suffered from H5N1 and the agriculture ministry has taken samples from the ducks and is still investigating where he may have contracted the virus," Suyono said. Mukhtar Ikhsan, an official at Jakarta's Persahabatan hospital, said the man was being treated in an emergency unit and was on a respirator. Indonesia has had 115 confirmed human cases of bird flu and suffered 92 human deaths, the highest number globally.

AVIAN INFLUENZA, HUMAN (Myanmar): 14 Dec 2007, The Ministry of Health in Myanmar has confirmed the country's first case of human infection with the H5N1 avian influenza virus. The case is a 7-year-old female from Kyaing Tone Township, Shan State. The case was detected through routine surveillance following an outbreak of H5N1 in poultry in the area in mid-November. She developed symptoms of fever and headache on Nov 21 and was hospitalized on Nov 27. She has now recovered. Samples taken from the case tested positive for H5N1 virus at the National Health Laboratory in Yangon, and the National Institute of Health in Thailand. The diagnosis was further confirmed at the WHO Collaborating Centre for Reference and Research on Influenza, National Institute of Infectious Diseases in Tokyo, Japan. A team from the Ministry of Health, the Ministry of Livestock and Fisheries and the WHO Country Office are conducting investigations to confirm the source of her infection. Initial findings indicate poultry die off in the vicinity of the case's home in the week prior to the onset of illness. To date, all identified contacts of the case remain healthy and ongoing surveillance activities in the area have not detected any further cases.

AVIAN INFLUENZA, HUMAN (Pakistan): 15 Dec 2007, The Ministry of Health in Pakistan has informed WHO of 8 suspected human cases of H5N1 avian influenza infection in the Peshawar area of the country. These cases were detected following a series of culling operations in response to outbreaks of H5N1 in poultry. One of the cases has now recovered and a further two suspected cases have since died. Samples taken from the suspected cases have tested positive for H5N1 in the national laboratory and are being forwarded to a WHO H5 Reference Laboratory for confirmation and further analysis. The MoH is taking steps to investigate and contain this event, including case isolation and contact tracing and monitoring, detailed epidemiological investigations, providing oseltamivir for case management and prophylaxis, reviewing hospital infection control measures and enhancing health care-based and community-based surveillance for acute respiratory infections. WHO is providing technical support to the MoH in epidemiological investigations, reviewing the surveillance, prevention and control measures that have been implemented and carrying out viral sequencing of avian and human isolates. Multiple poultry outbreaks of H5N1 influenza have been occurring in Pakistan since 2006. In 2007, there have also been outbreaks in wild birds. A majority of the outbreaks discovered have been in the 'poultry belt' of North-West Frontier Province, particularly in the Abbottabad and Mansehra area and cases of infection in wild birds have been identified in the Islamabad Capital Territory. If confirmed, this would be the first report of human cases of H5N1 in Pakistan.

NATIONAL DISEASE REPORTS:

SALMONELLOSIS, ANTIBIOTIC RESISTANT (Arizona): 12 Dec 2007, At least 14 people in Arizona have been struck with a particularly powerful strain of Salmonella with about half them needing hospital care, state health officials said. Workers inside the state health lab have been on the trail of the outbreak since late October. They are growing samples of the Salmonella bacteria taken from those people who have been ill from the germ to see if has the same genetic fingerprint as the kind of Salmonella that's made people sick in California, Nevada, and Idaho, said Ken Komatsu, Arizona Department of Health Services epidemiologist. "This particular strain has a fairly high rate of hospitalization," Komatsu said. "Half of our cases have been hospitalized." The latest outbreak is showing another unusual characteristic. Komatsu said the ability of the strain to resist antibiotics may partly explain why so many people who are getting it need hospital care. It's also unusual because cases are more likely to occur in summer than late fall or winter. Experts said they think the outbreak got started when many people bought and ate some kind of food product that was sold by a chain store. The product involved has not yet been identified. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CIGUATERA TOXIN, ALERT (Missouri): 15 Dec 2007, A food poisoning outbreak in St. Louis, MO, has officials there scratching their heads. At least 10 patrons of 2 area restaurants have fallen ill with an unusual fish-borne illness called ciguatera. The FDA is investigating the outbreak, which is unusually large, as only about 30 cases of ciguatera are reported in the US each year. All of the people involved in the St. Louis ciguatera outbreak ate amberjack, a tropical fish, at either the Blue Water Grill in Kirkwood or Frazer's Restaurant and Lounge in St. Louis. Ciguatera is a form of human poisoning caused by the consumption of subtropical and tropical marine finfish which have accumulated naturally occurring toxins, originating from algae species, through their diet. Ciguatera toxin may be found in large reef fish, most commonly barracuda, grouper, red snapper, eel, amberjack, sea bass, and Spanish mackerel. Symptoms occur within 6 hours of consumption and range from nausea, vomiting and diarrhea, to neurological symptoms including headache, sensory disorientation, vertigo and muscular weakness. The disease is rarely fatal, but in severe cases symptoms can linger for months or years. There is no way to cure ciguatera, but the symptoms can be treated while the disease runs its course. Both St. Louis-area restaurants purchased the amberjack at Bob's Seafood in University City, MO. Bob's Seafood in turn, had procured the amberjack from a federally inspected facility in Louisiana. The FDA is now trying to determine the source of the ciguatera contamination. The St. Louis Department of Health, which is expected to issue a health alert on Dec 12, believes that there may be other ciguatera victims in the area, and they are working with officials in St. Louis County to get the word out to health providers so they can spot ciguatera symptoms, which can sometimes mimic more serious diseases, such as multiple sclerosis. There have been no recorded cases of ciguatera in the St. Louis area before now. The health department is asking anyone who ate amberjack recently and is suffering from symptoms similar to ciguatera to call the St. Louis Department of Health. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

CHIKUNGUNYA (Indonesia): 9 Dec 2007, Chikungunya illness in Pekalongan City in Central Java is now regarded as an extraordinary emergency incident. More than 100 residents in 5 districts have been attacked by the illness spread by Aedes aegypti mosquitoes. The 5 affected areas include the Tirto District, Tegalrejo, Krapyak Lor (Slamaran), Jenggot, and Panjang Wetan. To prevent chikungunya from becoming an epidemic, the Head of the Health Section of Pekalongan City, Dr Dwi Heri Wibawa, did fogging or fumigation at several locations that were pointed out by residents who often suffered the illness resulting from chikungunya virus. Besides this, the Health Service has made an effort to inform and appeal to the residents so that cleanliness will be maintained, especially for the eradication of mosquito breeding sites. Chikungunya was also reported to have become an epidemic in Padang City in Sumatra. The illness was found in 77 cases in 3 outbreak areas. As prevention efforts, the Health Service did fogging and provided medical treatment to the sufferers. The cases were found in the Jati Koto Tinggi District, Padang East Subdistrict (34 cases), in the Rawang District (6 cases), and 37 cases in the Ranah District, Padang South Subdistrict. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (India): 9 Dec 2007, Four cases of chikungunya were detected in Salt Lake (West Bengal) on Dec 6, taking the number of people affected by the virus in the township to 38. Officials fear thousands are affected by the virus in Salt Lake and its adjoining areas. The patients diagnosed with chikungunya on Dec 6 were from Nazrul Pally and Baro Kapat, in ward 14 of Bidhannagar Municipality. In Calcutta, 7 people have been affected by the virus since March, but no fresh cases were reported on Dec 6. "Thousands may have been affected by chikungunya in North 24-Parganas, though only a handful have been admitted to hospital," said a health department official. "More than 250,000 people in the district have suffered from chikungunya and other viral infections over the past 6 months." Health officials visited the affected areas in Salt Lake. "We are asking people to prevent water accumulation in their neighborhoods," an official said. "Anti-larvae repellents are being sprayed." Similar measures are also being taken the city, said a Calcutta Municipal Corporation official. Chikungunya is a relatively rare form of viral fever caused by an alphavirus spread through Aedes aegypti mosquitoes. In October 2006, the disease was detected in 15-odd villages in Baduria and Swarupnagar, in North 24-Parganas. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (Kazakhstan): 10 Dec 2007, The Ministry of Emergencies of Kazakhstan has reported that the head of the West Kazakhstan oblast has announced a quarantine because of a case of anthrax in Zhimpity village in the Syrymsky district. The report states that only one sick cow has been registered; the body has been burned and buried. A total of 8 groups of specialists consisting of veterinarians and 2 assisting staff implement vaccination in the surroundings. Two observation posts equipped with disinfection barriers have been established for surveillance. An investigation has started in the farmstead where the sick cow died and the place was disinfected. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA, DIARRHEA (Zimbabwe): 11 Dec 2007, CHRA (Combined Harare Residents Association) has received an increasing number of reports on diarrhea and cholera cases from Mabvuku and Tafara in the last 2 weeks. Residents complain that while in some parts of Mabvuku and Tafara there has been a steady supply of water, it is almost always dirty and has a suspicious smell. On Dec 10 a CHRA team visited Mabvuku and Tafara and interviewed medical personnel in private and public clinics. It has emerged that hundreds of people are suffering from stomach problems which medical personnel liken to cholera and dysentery. A survey made by CHRA through its structures also revealed that most people cannot afford medical attention and resort to traditional means. The survey also revealed that a lot of people have been hit by the stomach ailments. The problems of disease outbreaks come after residents in Mabvuku and Tafara have been hit by serious water shortages resulting in most households fetching water from streams. As for the few who have water from their taps, the water is dirty and has visible algae. The Zimbabwe National Water Authority (ZINWA) took over the administration of sewer and water services from the City of Harare. The takeover led to a downward trend in the quality of services offered by the City of Harare. Sadly, ZINWA has failed to provide adequate water supplies for business and household use in Harare. The City of Harare has over 60 percent of water in its water bodies but ZINWA has no capacity to treat adequate supplies for residential and industrial use. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EBOLA HEMORRHAGIC FEVER (Uganda): 11 Dec 2007, An Ebola patient died in western Uganda on Dec 11, pushing the death toll from the current outbreak to 30 out of 116 people known to be infected with the lethal virus, the health ministry said. The health authorities were still registering new infections in Bundibugyo district, home to 250,000 people and the outbreak's epicenter. The US Centers for Disease Control pathogen experts continued to test for the virus that was identified as a new strain of Ebola virus, which epidemiologists say erupted in September but was identified only in late November. Hundreds of villagers and medics who had physical contact with the patients have been put under observation, authorities said. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (Uganda): 12 Dec 2007, The cholera epidemic has once again hit northern Uganda's Yumbe District, killing 5 people; and 65 cases have been registered, according to the District Health Officer Alfred Yayi. Meanwhile, the cholera has now spread to 10 sub-counties infecting 331 people in northwestern Uganda's Nebbi District while the death toll has remained at 4. The number of cases rose from 17 cases to 65 over the weekend, said Yayi on Dec 12. Yayi said that the worst-hit areas are Yoyo and Locogmbo parishes in Kuru and Romogi sub-counties respectively. He said the areas still lack clean water and proper sanitary facilities. It is the third time the scourge has hit the Nebbi district since the beginning of 2007, increasing the disease burden on the already resource-constrained district. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, FATAL (China): 12 Dec 2007, China's northwest Gansu Province reported its second plague case in 2007 in November, China's Ministry of Health said on Dec 10. The patient died, the ministry said in its monthly report on infectious diseases. No further details were provided. Gansu also reported China's first plague case of 2007 in September. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHOLERA (India): 13 Dec 2007, As India grapples with cross-border militant movement from Bangladesh, Indian scientists have detected another foe from that country, a virulent cholera strain that recently killed nearly 150 people in Orissa. Scientists at the Regional Medical Research Centre (RMRC) here, a body under the Indian Council of Medical Research (ICMR), have found a hybrid strain, new to Orissa, in many cholera patients in the tribal belt of Rayagada, Koraput and Kalahandi. "2 cholera organisms - El Tor and Classical, were generally found in Orissa and the new organism is a hybrid. The new strain is virulent and is behind the death of many people in the state," said S.K. Kar, director of RMRC, Bhubaneswar. "Our initial research has found the root of the strain as Bangladesh. A lot of Bangladeshi laborers working in the industrial units and mines of the area are the carriers of this organism. Scientists have found the hybrid strain first in Africa and then in Bangladesh. Of the total cases studied so far, 56 percent of them have been infected by this virulent strain. It must have come with Bangladeshi laborers and spread through water and other means," Kar said. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

*Cases and outbreaks will be cited for suspect level with regards to suspicion of BT threat. Therefore, cases and outbreaks will be categorized as "Determined BT", "Suspect" or "Non-suspect".

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Heather N. Brown, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
201 W. Preston Street, 3rd Floor
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: HBrown@dhmh.state.md.us